

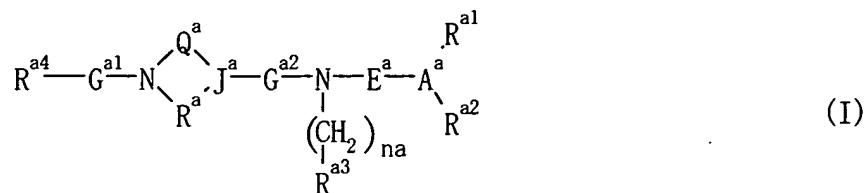
In the Claims

Please substitute the following claims 3 and 4 for the claims 3 and 4 now pending in the above-identified application.

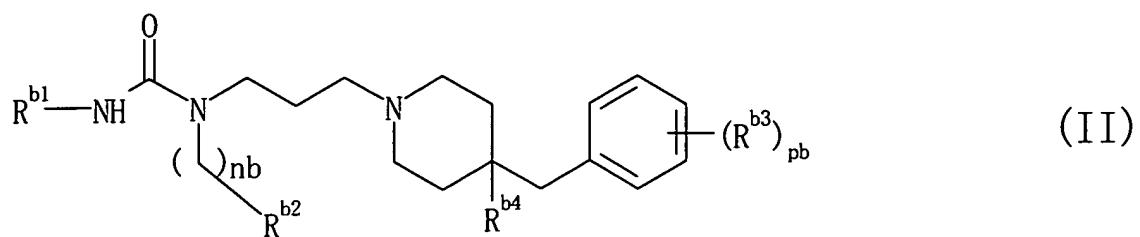
Please add new claims 9 and 10.

10/51112
DT01 Rec'd PCT 21 OCT 2004

1. (Original) An agent for the prevention or treatment of graft-versus host disease and/or rejection reactions during organ or bone marrow transplantation which comprises a compound having a CCR antagonistic effect represented by the formula:

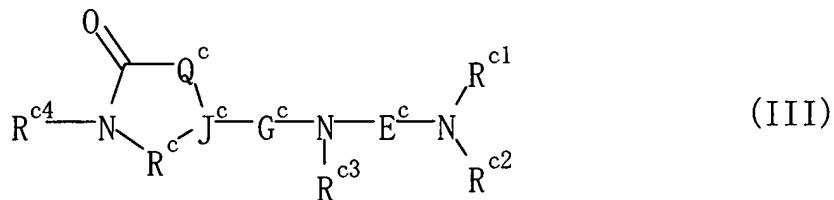


wherein R^{a1} is a hydrogen atom, a hydrocarbon group which may be substituted, a non-aromatic heterocyclic group which may be substituted, R^{a2} is a hydrocarbon group which may be substituted, a non-aromatic heterocyclic group which may be substituted, or R^{a1} and R^{a2} may combine with each other together with A^a to form a heterocyclic group which may be substituted, A^a is N or $N^+-R^{a5}Y^{a-}$ (R^{a5} is a hydrocarbon group, Y^{a-} is a counter anion), R^{a3} is a cyclic hydrocarbon group which may be substituted or a heterocyclic group which may be substituted, n is 0 or 1, R^{a4} is a hydrogen atom, a hydrocarbon group which may be substituted, a heterocyclic group which may be substituted, an alkoxy group which may be substituted, an aryloxy group which may be substituted, or an amino group which may be substituted, E^a is a divalent aliphatic hydrocarbon group which may be substituted by a group other than an oxo group, G^{a1} is a bond, CO or SO_2 , G^{a2} is CO, SO_2 , NHCO, CONH or OCO, J^a is methine or a nitrogen atom, and each of Q^a and R^a is a bond or a divalent C₁₋₃ aliphatic hydrocarbon which may be substituted, with the proviso that J^a is methine when G^{a2} is OCO, one of Q^a and R^a is not a bond when the other is a bond, and each of Q^a and R^a is not substituted by an oxo group when G^{a1} is a bond,



wherein R^{b1} is a hydrocarbon group which may be substituted; R^{b2} is a cyclic hydrocarbon group which may be substituted or a heterocyclic group which may be substituted; R^{b3} is a halogen atom, a carbamoyl group which may be substituted, a sulfamoyl group which may be substituted, an acyl group derived from a sulfonic acid, a C_{1-4} alkyl group which may be substituted, a C_{1-4} alkoxy group which may be substituted, an amino group which may be substituted, a nitro group or a cyano group; R^{b4} is a hydrogen atom or a hydroxy group; nb is an integer of 0 or 1; pb is an integer of 0 or 1 to 4,

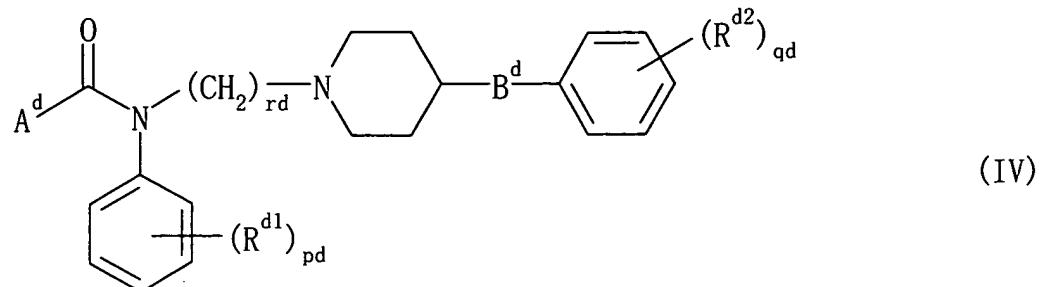
the formula:



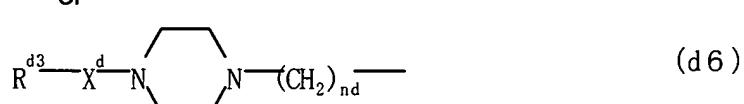
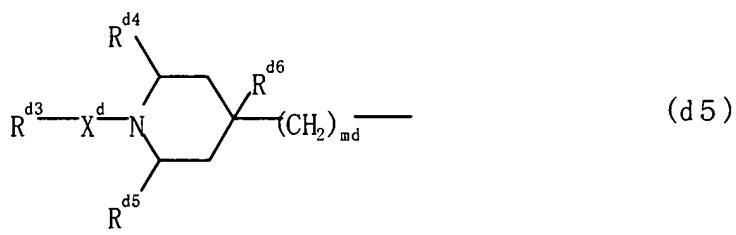
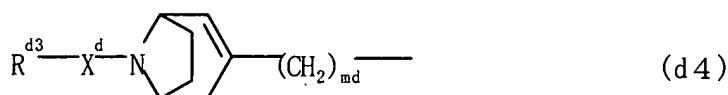
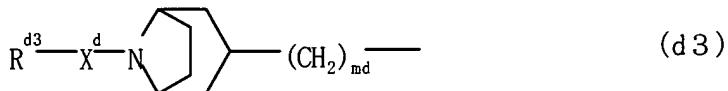
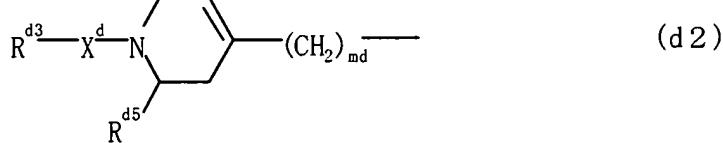
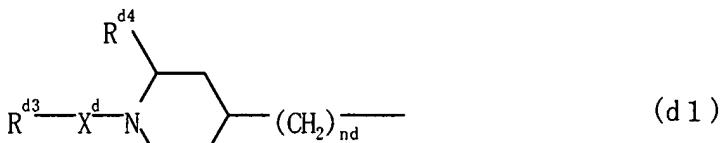
wherein $\text{R}^{\text{c}1}$ is a hydrocarbon group, $\text{R}^{\text{c}2}$ is a hydrocarbon group having 2 or more carbon atoms, or $\text{R}^{\text{c}1}$ and $\text{R}^{\text{c}2}$ may be bound together with the adjacent nitrogen atom to form a ring which may have a substituent or substituents, $\text{R}^{\text{c}3}$ is a hydrocarbon group which may have a substituent or substituents or a heterocyclic group which may have a substituent or substituents, $\text{R}^{\text{c}4}$ is a hydrogen atom, a hydrocarbon group which may have a substituent or substituents or a heterocyclic group which may have a substituent or substituents, E^{c} is a divalent aliphatic hydrocarbon group which may have a substituent or substituents other than an oxo group, G^{c} is CO or SO_2 , J^{c} is a nitrogen atom or a methine group which may have a substituent or

substituents, and Q^c and R^c are each a bond or a divalent aliphatic C₁₋₃ hydrocarbon group which may have a substituent or substituents,

the formula:

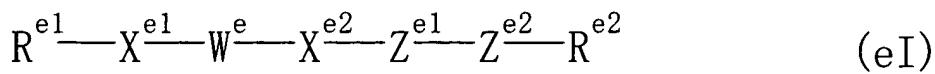


wherein A^d is a group represented by the formula:

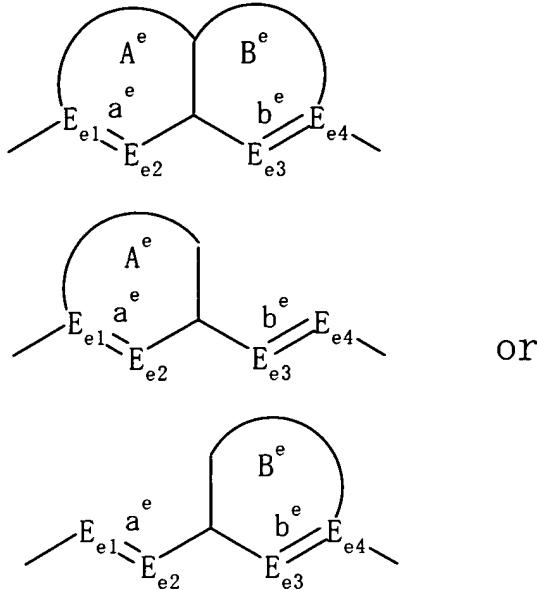


wherein, R^{d3} is (1) a hydrocarbon group which may be substituted, (2) a C₁₋₄ alkoxy group which may be substituted or (3) an amino group which may be substituted; X^d is a bond, -SO₂- or -CO-; nd is an integer of 1 to 3; md is 0 or an integer of 1 to 3; R^{d4} and R^{d5} are the same or different and each of which is a hydrogen atom or a C₁₋₆ alkyl group; R^{d6} is a hydroxyl group, a C₁₋₆ alkyl group or a C₂₋₆ alkenyl group; rd is an integer of 2 to 4; B^d is a bond, -CH₂-, -SO₂-, -SO-, -S-, -O-, -CO-, -NR^{da}-SO₂- or -NR^{da}-CO- (wherein, R^{da} is a hydrogen atom, a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group or a C₃₋₈ cycloalkyl group); each of pd and qd is 0 or an integer of 1 to 4; R^{d1} is a halogen atom, a C₁₋₆ alkyl group, a C₂₋₄ alkenyl group, a C₁₋₄ alkanoyl group, a C₁₋₄ alkoxy group, a cyano group, a trifloromethyl group, a nitro group, a hydroxyl group, an amino group or an amidino group; R^{d2} is 1) a halogen, 2) a C₁₋₆ alkyl which may be substituted by a halogen or a C₁₋₄ alkoxy, 3) a C₁₋₄ alkoxy which may be substituted by a halogen or a C₁₋₄ alkoxy, 4) nitro, 5) cyano, 6) hydroxyl, 7) a C₁₋₄ alkanoylamino, 8) SO₂NR^{db}R^{dc}, 9) SO₂R^{dd}, 10) CONR^{db}R^{dc}, 11) NR^{db}R^{dc} or 12) NR^{da}-SO₂R^{dd} (wherein, R^{da} has the meaning given above, and R^{db} and R^{dc} may be the same or different, and are (1) a hydrogen atom, (2) a C₁₋₆ alkyl group which may be substituted by a halogen or a C₁₋₄ alkoxy, or (3) a C₃₋₈ cycloalkyl group which may be substituted by a halogen or a C₁₋₄ alkoxy, or R^{db} and R^{dc} may bond with a nitrogen atom to form a cyclic amino group and R^{dd} is a C₁₋₆ alkyl group or a C₃₋₈ cycloalkyl group), each R^{d1} may be the same or different from each other when pd is two or more, and each R^{d2}, may be the same or different from each other when qd is two or more, or

the formula:

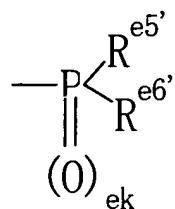


wherein R^{e1} represents a 5 to 6-membered cyclic ring group which may be substituted, X^{e1} represents a bond or a bivalent group, in which the number of atoms constituting the straight-chain portion is 1 to 4, W^e represents a bivalent group represented by formula:



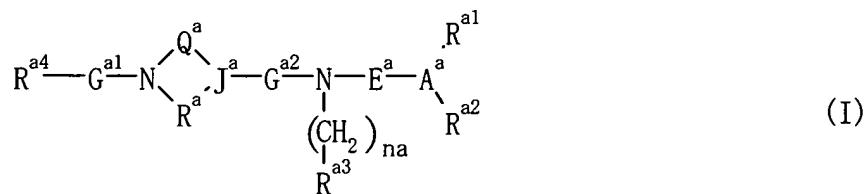
wherein each of ring A^e and ring B^e represents a 5- to 7-membered cyclic group which may be substituted, each of E_{e1} and E_{e4} is a carbon atom which may be substituted or a nitrogen atom which may be substituted, each of E_{e2} and E_{e3} is a carbon atom which may be substituted, a nitrogen atom which may be substituted, or a sulfur atom which may be oxidized or an oxygen atom, each of a^e and b^e is a single bond or a double bond), X^{e2} is a bivalent group in which the number of atoms constituting the straight-chain portion is 1 to 4, Z^{e1} is a bond or a bivalent cyclic ring group, Z^{e2} is a bond or a bivalent cyclic ring group in which the number of atoms constituting the straight-chain portion is 1 to 4, and R^{e2} is (1) an amino group which may be substituted, and the nitrogen atom may be converted into a quaternary ammonium or an N-oxide, (2) a nitrogen-containing heterocyclic ring group which may be substituted, may contain sulfur atom or an oxygen atom as a ring-constituting atom, and the nitrogen atom may be converted into

a quaternary ammonium or a N-oxide, (3) a group which is bonded via the sulfur atom, (4) a group represented by formula:



wherein ek is 0 or 1, the phosphorus atom may form a phosphonium salt when ek is 0, and each of $\text{R}^{\text{e}5'}$ and $\text{R}^{\text{e}6'}$ is a hydrocarbon atom which may be substituted, a hydroxyl group which may be substituted, or an amino group which may be substituted, and $\text{R}^{\text{e}5'}$ and $\text{R}^{\text{e}6'}$ may bond to each other to form a cyclic ring group together with the adjacent phosphorus atom, (5) an amidino group which may be substituted or (6) a guanidino group which may be substituted, or a salt thereof.

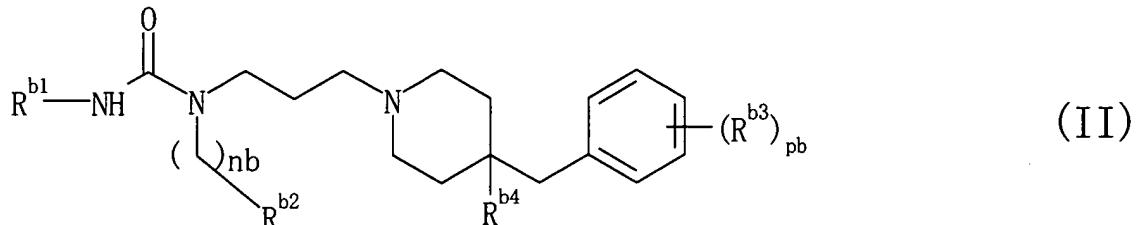
2. (Original) An agent for the prevention or treatment of chronic rheumatoid arthritis, autoimmune diseases, allergic disorders, ischemic brain cell damage, myocardial infarction, chronic nephritis, and arteriosclerosis which comprises a compound having a CCR antagonistic effect represented by the formula:



wherein $\text{R}^{\text{a}1}$ is a hydrogen atom, a hydrocarbon group which may be substituted, a non-aromatic heterocyclic group which may be substituted, $\text{R}^{\text{a}2}$ is a hydrocarbon group which may be substituted, a non-aromatic heterocyclic group which may be substituted, or $\text{R}^{\text{a}1}$ and $\text{R}^{\text{a}2}$ may combine with each other together with A^{a} to form a heterocyclic group which may be substituted,

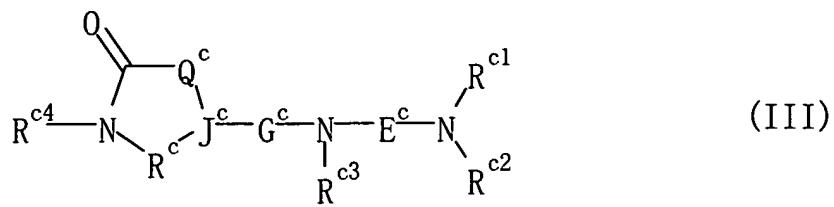
A^a is N or $N^+ \cdot R^{a5} \cdot Y^{a-}$ (R^{a5} is a hydrocarbon group, Y^{a-} is a counter anion), R^{a3} is a cyclic hydrocarbon group which may be substituted or a heterocyclic group which may be substituted, na is 0 or 1, R^{a4} is a hydrogen atom, a hydrocarbon group which may be substituted, a heterocyclic group which may be substituted, an alkoxy group which may be substituted, an aryloxy group which may be substituted, or an amino group which may be substituted, E^a is a divalent aliphatic hydrocarbon group which may be substituted by a group other than an oxo group, G^{a1} is a bond, CO or SO_2 , G^{a2} is CO, SO_2 , NHCO, CONH or OCO, J^a is methine or a nitrogen atom, and each of Q^a and R^a is a bond or a divalent C_{1-3} aliphatic hydrocarbon which may be substituted, with the proviso that J^a is methine when G^{a2} is OCO, one of Q^a and R^a is not a bond when the other is a bond, and each of Q^a and R^a is not substituted by an oxo group when G^{a1} is a bond,

the formula:



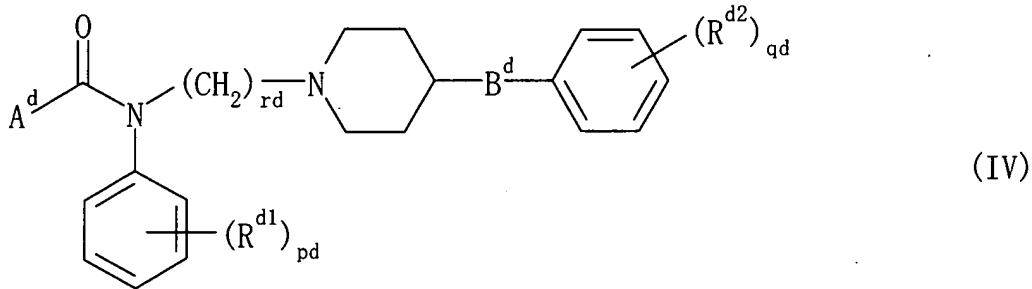
wherein R^{b1} is a hydrocarbon group which may be substituted; R^{b2} is a cyclic hydrocarbon group which may be substituted or a heterocyclic group which may be substituted; R^{b3} is a halogen atom, a carbamoyl group which may be substituted, a sulfamoyl group which may be substituted, an acyl group derived from a sulfonic acid, a C_{1-4} alkyl group which may be substituted, a C_{1-4} alkoxy group which may be substituted, an amino group which may be substituted, a nitro group or a cyano group; R^{b4} is a hydrogen atom or a hydroxy group; nb is an integer of 0 or 1; pb is an integer of 0 or 1 to 4,

the formula:

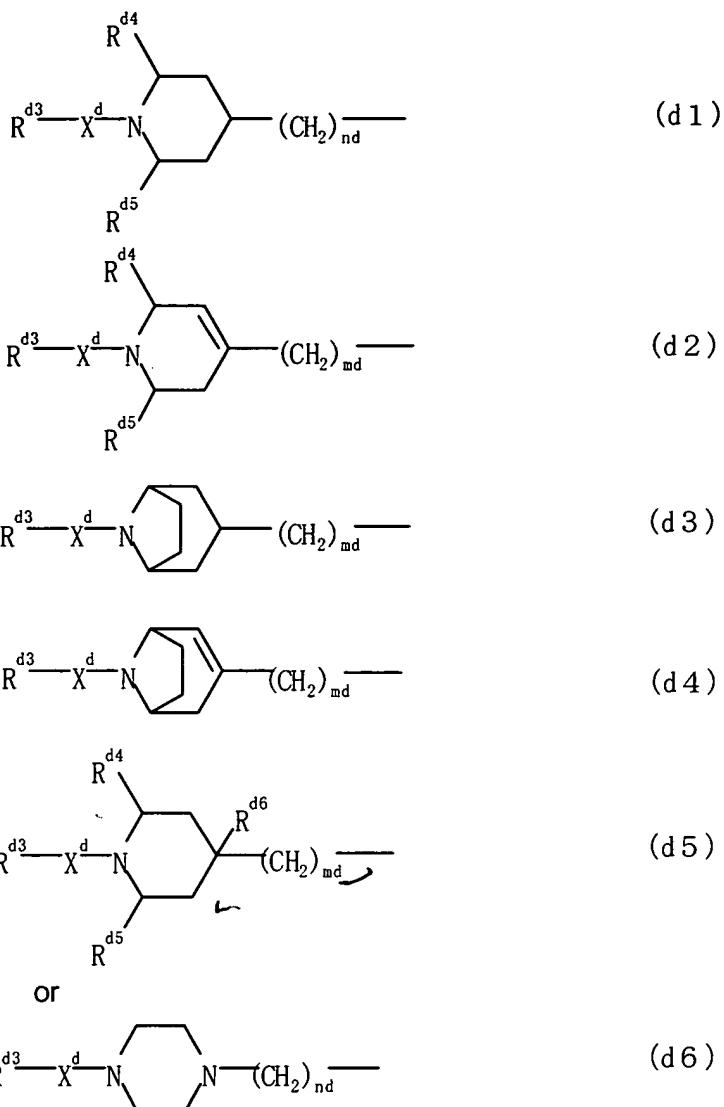


wherein R^{c1} is a hydrocarbon group, R^{c2} is a hydrocarbon group having 2 or more carbon atoms, or R^{c1} and R^{c2} may be bound together with the adjacent nitrogen atom to form a ring which may have a substituent or substituents, R^{c3} is a hydrocarbon group which may have a substituent or substituents or a heterocyclic group which may have a substituent or substituents, R^{c4} is a hydrogen atom, a hydrocarbon group which may have a substituent or substituents or a heterocyclic group which may have a substituent or substituents, E^c is a divalent aliphatic hydrocarbon group which may have a substituent or substituents other than an oxo group, G^c is CO or SO₂, J^c is a nitrogen atom or a methine group which may have a substituent or substituents, and Q^c and R^c are each a bond or a divalent aliphatic C₁₋₃ hydrocarbon group which may have a substituent or substituents,

the formula:



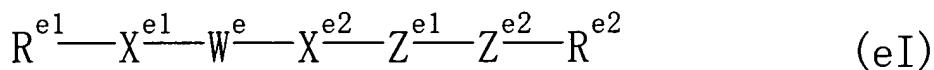
wherein A^d is a group represented by the formula:



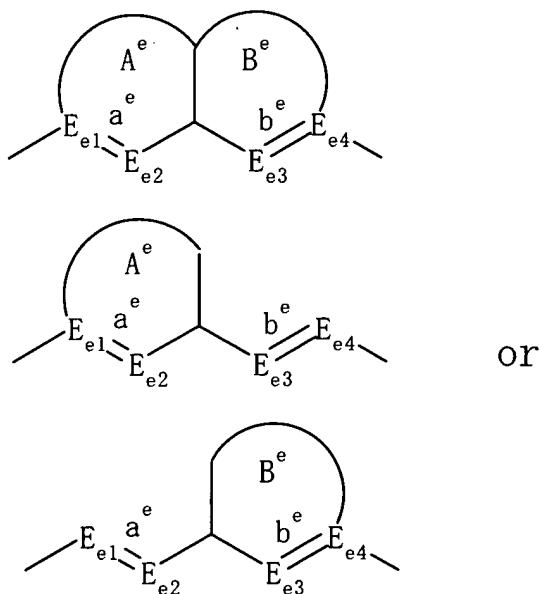
wherein, R^{d3} is (1) a hydrocarbon group which may be substituted, (2) a C_{1-4} alkoxy group which may be substituted or (3) an amino group which may be substituted; X^d is a bond, $-SO_2-$ or $-CO-$; nd is an integer of 1 to 3; md is 0 or an integer of 1 to 3; R^{d4} and R^{d5} are the same or different and each of which is a hydrogen atom or a C_{1-6} alkyl group; R^{d6} is a hydroxyl group, a C_{1-6} alkyl group or a C_{2-6} alkenyl group; rd is an integer of 2 to 4; B^d is a bond, $-CH_2-$, $-SO_2-$, $-SO-$, $-S-$, $-O-$, $-CO-$, $-NR^{da}-SO_2-$ or $-NR^{da}-CO-$ (wherein, R^{da} is a hydrogen atom, a C_{1-6} alkyl group, a C_{2-6} alkenyl group or a C_{3-8} cycloalkyl group); each of pd and qd is 0 or an integer of 1 to 4; R^{d1} is a halogen atom, a C_{1-6} alkyl group, a C_{2-4} alkenyl group, a C_{1-4} alkanoyl group, a C_{1-4} alkoxy group, a cyano group, a trifluoromethyl group, a nitro group, a hydroxyl group, an amino group or an

amidino group; R^{d2} is 1) a halogen, 2) a C₁₋₆ alkyl which may be substituted by a halogen or a C₁₋₄ alkoxy, 3) a C₁₋₄ alkoxy which may be substituted by a halogen or a C₁₋₄ alkoxy, 4) nitro, 5) cyano, 6) hydroxyl, 7) a C₁₋₄ alkanoylamino, 8) SO₂NR^{db}R^{dc}, 9) SO₂R^{dd}, 10) CONR^{db}R^{dc}, 11) NR^{db}R^{dc} or 12) NR^{da}-SO₂R^{dd} (wherein, R^{da} has the meaning given above, and R^{db} and R^{dc} may be the same or different, and are (1) a hydrogen atom, (2) a C₁₋₆ alkyl group which may be substituted by a halogen or a C₁₋₄ alkoxy, or (3) a C₃₋₈ cycloalkyl group which may be substituted by a halogen or a C₁₋₄ alkoxy, or R^{db} and R^{dc} may bond with a nitrogen atom to form a cyclic amino group and R^{dd} is a C₁₋₆ alkyl group or a C₃₋₈ cycloalkyl group), each R^{d1} may be the same or different from each other when pd is two or more, and each R^{d2}, may be the same or different from each other when qd is two or more, or

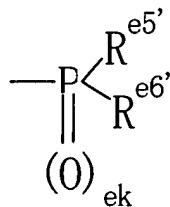
the formula:



wherein R^{e1} represents a 5 to 6-membered cyclic ring group which may be substituted, X^{e1} represents a bond or a bivalent group, in which the number of atoms constituting the straight-chain portion is 1 to 4, W^e represents a bivalent group represented by formula:



wherein each of ring A^e and ring B^e represents a 5- to 7-membered cyclic group which may be substituted, each of Ee₁ and Ee₄ is a carbon atom which may be substituted or a nitrogen atom which may be substituted, each of Ee₂ and Ee₃ is a carbon atom which may be substituted, a nitrogen atom which may be substituted, or a sulfur atom which may be oxidized or an oxygen atom, each of a^e and b^e is a single bond or a double bond), X^{e2} is a bivalent group in which the number of atoms constituting the straight-chain portion is 1 to 4, Z^{e1} is a bond or a bivalent cyclic ring group, Z^{e2} is a bond or a bivalent cyclic ring group in which the number of atoms constituting the straight-chain portion is 1 to 4, and R^{e2} is (1) an amino group which may be substituted, and the nitrogen atom may be converted into a quaternary ammonium or an N-oxide, (2) a nitrogen-containing heterocyclic ring group which may be substituted, may contain sulfur atom or an oxygen atom as a ring-constituting atom, and the nitrogen atom may be converted into a quaternary ammonium or a N-oxide, (3) a group which is bonded via the sulfur atom, (4) a group represented by formula:



wherein ek is 0 or 1, the phosphorus atom may form a phosphonium salt when ek is 0, and each of R^{e5'} and R^{e6'} is a hydrocarbon atom which may be substituted, a hydroxyl group which may be substituted, or an amino group which may be substituted, and R^{e5'} and R^{e6'} may bond to each other to form a cyclic ring group together with the adjacent phosphorus atom, (5) an amidino group which may be substituted or (6) a guanidino group which may be substituted, or a salt thereof.

3. (Currently Amended) The agent for the prevention or treatment according to claim 1 ~~or 2~~, wherein the compound having a CCR antagonistic effect or a salt thereof is N-(3,4-dichlorophenyl)-1-(methylsulfonyl)-N-{3-[4-({4-[(methylsulfonyl)-amino]phenyl}sulfonyl)-1-piperidinyl]propyl}-4-piperidinecarboxamide, N-(3-chlorophenyl)-1-(methylsulfonyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-4-piperidinecarboxamide, N-(3-{4-[4-(aminocarbonyl)benzyl]-1-piperidinyl}propyl)-N-(3,4-dichlorophenyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, 1-acetyl-N-(3-{4-[4-(aminocarbonyl)benzyl]-1-piperidinyl}propyl)-N-(3-chloro-4-methylphenyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(ethylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3-chlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3-chlorophenyl)-N-(3-{4-[4-(ethylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-1-(methylsulfonyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-4-piperidinecarboxamide, N-(3-{4-[4-(aminocarbonyl)benzyl]-1-piperidinyl}propyl)-N-(3-chloro-4-methylphenyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-N'-(4-chlorophenyl)-N-phenylurea, N'-(4-chlorophenyl)-N-{3-[4-(4-fluorobenzyl)-1-piperidinyl]propyl}-N-phenylurea, N'-(4-chlorophenyl)-N-(3-{4-[4-(4-morpholinylsulfonyl)benzyl]-1-piperidinyl}propyl)-N-phenylurea, N'-(4-

chlorophenyl)-N-(3-{4-[4-(4-methylsulfonyl)benzyl]-1-piperidinyl}propyl)-N-phenylurea, 4-{[1-(3-{{(4-chloroanilino)carbonyl}anilino}propyl)-4-piperidinyl]methyl}benzamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-N-(3,4-dichlorophenyl)-1-methyl-5-oxo-3-pyrrolidinecarboxamide, 1-benzyl-N-[3-(4-benzyl-1-piperidinyl)propyl]-5-oxo-N-phenyl-3-pyrrolidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-1-(2-chlorobenzyl)-5-oxo-N-phenyl-3-pyrrolidinecarboxamide, N-(3,4-dichlorophenyl)-N-{3-[4-(4-fluorobenzyl)-1-piperidinyl]propyl}-1-methyl-5-oxo-3-pyrrolidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-5-oxo-N-phenyl-1-(2,2,2-trifluoroethyl)-3-pyrrolidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-2-[1-(methylsulfonyl)-4-piperidinyl]acetamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-2-[1-(methylsulfonyl)-4-piperidinyl]acetamide, 3-(1-acetyl-4-piperidinyl)-N-(3,4-dichlorophenyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)propanamide, or N-(3,4-dichlorophenyl)-4-hydroxy-1-(methylsulfonyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-4-pyrrolidinecarboxamide or a salt thereof.

4. (Currently Amended) The prevention or treatment agent according to claim 1 ~~or~~ 2, wherein the compound having a CCR antagonistic effect or a salt thereof is N-methyl-N-[4-[[2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl]carbonyl]amino]benzyl)piperidinium iodide, N-methyl-N-[4-[[[7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-

yl]carbonyl]amino]benzyl]piperidinium iodide, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-carboxamide, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-morpholinophenyl)-2,3-dihydro-1-benzoxepin-4-carboxamide, 7-(4-ethoxyphenyl)-N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-2,3-dihydro-1-benzoxepin-4-carboxamide, N,N-dimethyl-N-[4-[[2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl]carbonyl]amino]benzyl]-N-(tetrahydropyran-4-yl)ammonium iodide, N-methyl-N-[4-[[[7-(4-methylphenyl)-3,4-dihydronaphthalen-2-yl]carbonyl]amino]benzyl]-N-(tetrahydropyran-4-yl)ammonium chloride, N,N-dimethyl-N-(4-((2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl)carbonyl)amino)benzyl)-N-(4-tetrahydropyranyl)ammonium chloride, N,N-dimethyl-N-(((7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-yl)carbonyl)amino)benzyl)-N-(4-oxocyclohexyl)ammonium chloride, N-(4-((7-(4-ethoxyphenyl)-2,3-dihydro-1-benzoxepin-4-yl)carbonyl)amino)benzyl)-N,N-dimethyl-N-(4-tetrahydropyranyl)ammonium chloride, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-propoxyphenyl)-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(4-butoxyphenyl)-N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-[N-methyl-N-(2-propoxyethyl)amino]phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-4-

yl)amino]methyl]phenyl]-7-[4-(2-propoxyethoxy)phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)-3,5-dimethylphenyl]-N-[4-[[N-methyl-N-(tetrahydro-2H-pyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[2-chloro-4-(2-propoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(3-methyl-4-propoxypyhenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(3,4-dipropoxypyhenyl)-N-(4-((N-methyl-N-(tetrahydro-2H-pyran-4-yl)amino)methyl)phenyl)-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-ethyl-7-[4-(2-propoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-formyl-7-[4-(2-propoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-N-[4-[[N-methyl-N-

(tetrahydropyran-5-yl)amino]methyl]phenyl]-1-propyl-2,3-dihydro-1-benzoazepin-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-[4-(2-propoxyethoxy)phenyl]-1-propyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-benzyl-7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-cyclopropylmethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-phenyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(3,4-methylenedioxy)phenyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(2-methyloxazol-5-yl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-allyl-7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(3-thienyl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-2-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(1-methylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(3-methylisothiazol-5-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-

yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(1-ethylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-[4-(2-propoxyethoxy)phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(1-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, or 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(2-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide or a salt thereof.

5. (Original) A method of preventing or treating graft-versus host disease and/or rejection reactions during organ or bone marrow transplantation, which comprises the step of administering an effective amount of a compound having a CCR antagonist effect to a mammal.

piperidinyl}propyl)-N-(3-chloro-4-methylphenyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(ethylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3-chlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3-chlorophenyl)-N-(3-{4-[4-(ethylsulfonyl)benzyl]-1-piperidinyl}propyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-(3,4-dichlorophenyl)-1-(methylsulfonyl)-N-(3-{4-[4-(ethylsulfonyl)benzyl]-1-piperidinyl}propyl)-4-piperidinecarboxamide, N-(3-{4-[4-(aminocarbonyl)benzyl]-1-piperidinyl}propyl)-N-(3-chloro-4-methylphenyl)-1-(methylsulfonyl)-4-piperidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-N'-(4-chlorophenyl)-N-phenylurea, N'-(4-chlorophenyl)-N-{3-[4-(4-fluorobenzyl)-1-piperidinyl]propyl}-N-phenylurea, N'-(4-chlorophenyl)-N-(3-{4-[4-(4-morpholinylsulfonyl)benzyl]-1-piperidinyl}propyl)-N-phenylurea, N'-(4-chlorophenyl)-N-(3-{4-[4-(4-methylsulfonyl)benzyl]-1-piperidinyl}propyl)-N-phenylurea, 4- {[1-(3-{[(4-chloroanilino)carbonyl]anilino}propyl)-4-piperidinyl]methyl}benzamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-N-(3,4-dichlorophenyl)-1-methyl-5-oxo-3-pyrrolidinecarboxamide, 1-benzyl-N-[3-(4-benzyl-1-piperidinyl)propyl]-5-oxo-N-phenyl-3-pyrrolidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-1-(2-chlorobenzyl)-5-oxo-N-phenyl-3-pyrrolidinecarboxamide, N-(3,4-dichlorophenyl)-N-{3-[4-(4-fluorobenzyl)-1-piperidinyl]propyl}-1-methyl-5-oxo-3-pyrrolidinecarboxamide, N-[3-(4-benzyl-1-piperidinyl)propyl]-5-oxo-N-phenyl-1-(2,2,2-trifluoroethyl)-3-pyrrolidinecarboxamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-2-[1-(methylsulfonyl)-4-

piperidinyl]acetamide, N-(3,4-dichlorophenyl)-N-(3-{4-[4-(isopropylsulfonyl)benzyl]-1-piperidinyl}propyl)-2-[1-(methylsulfonyl)-4-piperidinyl]acetamide, 3-(1-acetyl-4-piperidinyl)-N-(3,4-dichlorophenyl)-N-(3-{4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)propanamide, or N-(3,4-dichlorophenyl)-4-hydroxy-1-(methylsulfonyl)-N-(3-{4-[4-(methylsulfonyl)benzyl]-1-piperidinyl}propyl)-4-piperidinecarboxamide or a salt thereof.

10. (New) The prevention or treatment agent according to claim 2, wherein the compound having a CCR antagonistic effect or a salt thereof is N-methyl-N-[4-[[2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl]carbonyl]amino]benzyl)piperidinium iodide, N-methyl-N-[4-[[[7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-yl]carbonyl]amino]benzyl)piperidinium iodide, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-carboxamide, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-morpholinophenyl)-2,3-dihydro-1-benzoxepin-4-carboxamide, 7-(4-ethoxyphenyl)-N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-2,3-dihydro-1-benzoxepin-4-carboxamide, N,N-dimethyl-N-[4-[[2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl]carbonyl]amino]benzyl]-N-(tetrahydropyran-4-yl)ammonium iodide, N-methyl-N-[4-[[[7-(4-methylphenyl)-3,4-dihydronaphthalen-2-yl]carbonyl]amino]benzyl)piperidinium iodide, N,N-dimethyl-N-((4-(((2-(4-methylphenyl)-6,7-dihydro-5H-benzocyclohepten-8-yl)carbonyl)amino)benzyl)-N-(4-tetrahydropyranyl)ammonium chloride, N,N-dimethyl-N-((7-(4-methylphenyl)-2,3-dihydro-1-benzoxepin-4-yl)carbonyl)amino)benzyl)-N-(4-oxocyclohexyl)ammonium

chloride, N-((7-(4-ethoxyphenyl)-2,3-dihydro-1-benzoxepin-4-yl)carbonyl)amino)benzyl)-N,N-dimethyl-N-(4-tetrahydropyranyl)ammonium chloride, N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-propoxypyhenyl)-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(4-butoxyphenyl)-N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-[N-methyl-N-(2-propoxymethyl)amino]phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-7-[4-(2-propoxymethoxy)phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)-3,5-dimethylphenyl]-N-[4-[[N-methyl-N-(tetrahydro-2H-pyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[2-chloro-4-(2-propoxymethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(3-methyl-4-propoxypyhenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-(3,4-dipropoxypyhenyl)-N-(4-((N-methyl-N-(tetrahydro-2H-pyran-4-yl)amino)methyl)phenyl)-1,1-dioxo-2,3-dihydro-1-benzothiepin-4-carboxamide, 7-[4-(2-ethoxyethoxy)phenyl]-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-ethyl-7-[4-(2-

propoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-formyl-7-[4-(2-propoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-1-propyl-2,3-dihydro-1-benzoazepin-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-[4-(2-propoxyethoxy)phenyl]-1-propyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-benzyl-7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-cyclopropylmethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-phenyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(3,4-methylenedioxy)phenyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(2-methyloxazol-5-yl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-

carboxamide, 1-allyl-7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(3-thienyl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-2-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(1-methylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(3-methylisothiazol-5-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-(1-ethylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-[4-(2-propoxyethoxy)phenyl]-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(1-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide, or 7-[4-(2-butoxyethoxy)phenyl]-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(2-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzoazepin-4-carboxamide or a salt thereof.